Cornell International Law Journal

Volume 24
Issue 1 *Winter 1991*

Article 4

Promoting International Environmental Protections through Foreign Debt Exchange Transactions

David Barrans

Promoting International Environmental Protections Through Foreign Debt Exchange Transactions

Introduction

Two of the most recent commodities to gain prominence in the international market are foreign debt and the environment. In response to a variety of economic and social incentives, these two nontraditional commodities have become the subject of bargain and sale in limited spheres. The expanding menu of options in international trade has promoted a marriage of convenience between two often adversarial interests whereby sovereign debt obligations are exchanged for environmental protections.

Many debtor nations, suffering from the effects of rapid inflation and declining export revenues, increasingly are unable to pay their external debts. Accordingly, many creditors have discounted or sold their foreign debt holdings.[1] This situation has given rise to a growing secondary market wherein independent investors purchase debt at a discounted price and assume the role of creditor.[2] These investors hold the debt subject to the same risks of default as the original lender, yet on

1. *See* Chamberlin, Gruson & Weltchek, *Sovereign Debt Exchanges*, 1988 U. ILL. L. REV. 415, 417-19 (1989).

Inflation and declining export revenues in turn are caused by a number of factors, including the conditions of the international market and policies of the debtor nation, developed nations, and lending banks. It is perhaps impossible to conclusively isolate the causes of the debt crisis. *See* Griffith-Jones & Nichols, *New Directions In Debt Management*, 19 CASE W. RES. INT'L L.J. 53, 56-57 (1987). In simple terms, the debt crisis is the result of the failure of borrowing nations to achieve anticipated economic growth through the use of foreign loan funds. Barth, Bradley & Panayotacos, *Understanding the International Debt Crisis*, 19 CASE W. RES. INT'L L.J. 31, 32-35 (1987).

2. M. DEFARIA, D. STOTT & T. BUCHANAN, PW/EUROMONEY DEBT-EQUITY SWAP GUIDE ch. 2 (1988). The average market price for the debt of the 15 most heavily indebted countries decreased from 68 cents per dollar of debt in January 1987 to 36 cents per dollar in January 1989. *New Approaches to the Third World Debt Problem: Hearings Before the Subcomm. on International Finance and Monetary Policy of the Senate Comm. on Banking, Housing and Urban Affairs*, 101st Cong., 1st Sess. 187 (1989). For tables of secondary market prices of some foreign debts, see *Foreign Operations, Export Financing and Related Programs Appropriations for 1990: Hearings Before a Subcommittee of the House Comm. on Appropriations*, 101st Cong., 1st Sess. 48, pt. 5 (1989) [hereinafter *Foreign*

a lower cost basis. Upon purchasing the debt, investors sometimes negotiate with the debtor nation to exchange the debt for other interests, such as equity interests in industries of the debtor nation.[3]

Independent of the debt crisis, the environment recently has become a prominent issue in international trade and multilateral agreements. Growing concern over issues such as global warming and extinction of plant and animal species has led nations to seek means of restricting the environmentally destructive activities of other nations.[4] In recent years, concern has focused largely on the world's rain forests, which are crucially important to the global environment.[5]

Although the preferred method of obtaining global environmental protections is through negotiated treaties,[6] political problems arise when the evil sought to be remedied is particular only to certain nations. For example, destruction of the rain forests in Brazil adversely affects the ozone layer worldwide, yet attempts to negotiate restrictions of commercial activities in the rain forest impose a unilateral burden on Brazil and are opposed as "environmental imperialism."[7] Thus, countries seeking to impose unilateral burdens to protect the environment often must "purchase" those protections through economic incentives.[8] As with foreign debt, environmental protections have become a commodity bought and sold through international transactions.

The rise of these nontraditional commodities has led to several varieties of innovative international transactions, the effectiveness of which remains to be seen. Several recent transactions recognize the convergence of these environmental and financial concerns by attempting to simultaneously ease the burdens of repaying foreign debt and establish

---

Operations]; *see also* R. DEBS, D. ROBERTS & E. REMOLONA, FINANCE FOR DEVELOPING COUNTRIES: ALTERNATIVE SOURCES OF FINANCE: DEBT SWAPS 21 (1987).

3. The original lender may itself negotiate such exchanges with the debtor nation. Wallenstein & Silkenat, *Investment Funds and Debt-Equity Swaps: Broadening the Base of a New Financial Tool*, 12 FORDHAM INT'L L.J. 9, 17 (1988). Investors who purchase discounted debt, however, obtain a greater advantage through the use of the secondary debt market. An investor may purchase a given amount of debt at a price significantly below face value and exchange it for interests equivalent to the face value of the exchanged debt.

4. Hoagland, *Global Change is Key Political Topic for 1989*, BIOSCIENCE, Mar. 1989, at 151.

5. *See* Giaimo, *Deforestation in Brazil: Domestic Political Imperative—Global Ecological Disaster*, 18 ENVTL. L. REV. 537 (1988).

6. *See* Peddington, *Sovereignty and the Environment*, ENVIRONMENT, Sept. 1989, at 18.

7. Rowen, *Heading Off an Amazon Disaster*, Wash. Post, Apr. 2, 1989, at H1, col. 2; *The World Puts the Heat on Brazil*, WORLD PRESS REV., May 1989, at 38.

8. *See* Stavins, *Harnessing Market Forces to Protect the Environment*, ENVIRONMENT, Jan./Feb. 1989, at 6.

One recent example of using economic incentives to protect the environment is Article IV of the Montreal Protocol on Substances Which Deplete the Ozone Layer, 26 I.L.M. 1541 (1987), by which nations signing the treaty agree to restrict trade with countries producing chlorofluourocarbons in excess of levels established by the treaty. Such restricted trade amounts to a trade embargo on countries who do not comply with the standards of the Protocol. *Id.* at 1554.

mechanisms to protect the global environment. Among the most promising of such transactions is the "debt-for-nature swap."[9]

Debt-for-nature swaps are a method of restructuring existing debt whereby a creditor bank sells or donates part of the outstanding debt to a charitable organization. Pursuant to an agreement between the charitable organization and the debtor nation, the debtor nation pays the face amount of the debt to its own national environmental programs.[10] This arrangement eases the burden of capital flight by allowing the debt payments to remain in the debtor nation, reducing the debt obligation without reducing its capital base.[11] Simultaneously, it provides funds for environmental protection programs that benefit the debtor nation and the global environment.

The environmental protections negotiated through debt-for-nature swaps fall into at least two basic categories. First, debtor nations may agree to establish conservation reserves where environmentally destructive activities are prohibited or restricted. Alternatively, exchanged debt amounts may fund new or existing environmental protection programs such as reforestation, park maintenance, environmental research, and education and training. Some debt exchanges combine both forms of protections. Exchanges of the latter type are sometimes called "debt-for-development swaps." Debt-for-development swaps are transactions in which converted debt finances programs to improve the general social welfare in developing countries. Such programs may promote education, famine relief, technological advances, or environmental protections. This Note will collectively refer to both types of transactions as "debt-for-nature swaps." When referring specifically to one or the other, transactions establishing specific reserve areas will be called "debt-for-conservation swaps," and those funding other types of programs will be called "debt-for-development swaps."[12]

---

9. *See* Chamberlin, Gruson & Weltchek, *supra* note 1, at 440-46.

10. *See Conservation Groups Help Bail Out the Big Banks*, BUS. & SOC'Y REV., Spring 1988, at 34 [hereinafter *Conservation Groups Help*].

11. Capital flight, the net outflow of capital from developing nations to developed nations, has more than quadrupled since 1984 due to decreased investment in indebted nations and the severe trade imbalance resulting from the debt crisis. Approximately 70% of all new loan funds to the largest Latin American debtors is repaid to developed countries as interest on debt. S. GEORGE, A FATE WORSE THAN DEBT 20 (1988). In 1988, $43 billion was transferred from developing countries to developed ones. MacNeil, *Strategies for Sustainable Economic Development*, SCI. AM., Sept. 1989, at 156. *See generally* S. GEORGE, *supra*, at 19-21; C. CARVOUNIS, THE FOREIGN DEBT/NATIONAL DEVELOPMENT CONFLICT 134-37 (1986) (detailing the effects of the debt crisis on capital flight).

12. These distinctions may be more theoretical than practical. Conservation and management of natural resources are factors contributing to development. Thus most debt-for-nature swaps can be said to serve developmental ends. From another perspective, however, conservation directly inhibits development. For purposes of this Note, the distinction between debt-for-conservation and debt-for-development swaps refers more specifically to the scope of the exchange. Debt-for-conservation swaps seek environmental concessions for global benefits. Debt-for-development swaps seek to implement social programs promoting economic and social develop-

This Note will examine the operation of debt-for-nature swaps and related transactions and their potential effectiveness in achieving the dual ends of easing the debt burden and protecting the environment. This Note concludes that existing forms of environmentally-oriented debt exchanges may offer limited benefits; however, many debtor nations are reluctant to participate in such exchanges. Part One of this Note will discuss the need — in the entire global environment — for mechanisms to protect the rain forests. Part Two will review the relationship of environmental concerns to the debt crisis. Part Three will examine the operation of debt-for-nature swaps, using specific recent examples. Part Four will explore various methods for potentially increasing the effectiveness of these transactions. Finally, Part Five will examine the role that the United States and the World Bank must play in facilitating debt exchanges.

I. The Environmental Imperative

Environmental damage is a consequence of development traditionally regarded as a necessary evil for which economic prosperity will compensate.[13] Yet, the increasingly rapid degradation of the world environment has forced a new perspective, one which recognizes a current environmental crisis of global proportions.[14] This section details the effects of the destruction of tropical rain forests upon the earth's environment and the urgent need for rain forest protection.

Rain forests are the most important natural entity for maintaining biological diversity and preventing global warming. The effects of deforestation are potentially devastating.[15] Rain forests are the earth's primary reservoir of biological diversity. While covering only seven percent of the earth's surface, they house between fifty to sixty percent of all plant and animal species, the majority of which have yet to be discovered.[16] Scientists estimate that if current deforestation is not stopped, approximately fifteen to twenty percent of the world's plant and animal species will be extinct by the year 2000.[17] Already, approximately 100

---

ment in the debtor nation. In practice, most debt-for-nature swaps involve a combination of the two objectives.

13. *See* Rich, *Funding Deforestations: Conservation Woes at the World Bank*, NATION, Jan. 23, 1989, at 90.

14. Hoagland, *supra* note 4, at 151.

15. *Tropical Forests: An Endangered Species*, WORLD PRESS REV., May 1989, at 36 [hereinafter *Tropical Forests*].

16. Linden, *The Death of Birth*, TIME, Jan. 2, 1989, at 33. Approximately 1.7 of an estimated 5 to 30 million species are currently cataloged. *Id.*

17. Goodland & Ledec, *Wildlands: Balancing Conversion With Conservation in World Bank Projects*, ENVIRONMENT, Nov. 1989, at 6.

The opportunity costs of mass extinctions are incalculable. Not only will the evolutionary process be permanently altered, but the destruction of species will greatly hinder development of drugs for prevention and treatment of disease. One fourth of all drugs prescribed in the U.S. come from tropical plants. Linden, *supra* note 16, at 33. Deforestation may have already destroyed plants that would have been invaluable in the treatment of AIDS, cancer, and other diseases.

plant and animal species are being driven to extinction each day.[18]

Approximately 77,000 square miles of tropical rain forests are destroyed each year, 30,000 in South America alone.[19] At present rates of deforestation, half of all rain forest land existing in 1980 could be wiped out by the year 2000.[20] Moreover, as rain forests become smaller, they may cease to be self-sustaining and die off.[21]

The effects of deforestation upon global warming may already be discernible. Rain forests absorb a substantial amount of atmospheric carbon dioxide and thereby help maintain a relatively stable balance of atmospheric gases.[22] It is theorized that excess carbon dioxide in the atmosphere traps heat near the earth's surface, increasing surface temperatures.[23] Moreover, when trees are burned, or cut and left to rot, they release additional carbon dioxide into the atmosphere.[24] According to computer projections, the accumulation of atmospheric carbon dioxide resulting from current deforestation practices could raise the earth's average temperature between three and nine degrees Fahrenheit by the year 2050.[25] This increase would cause oceans to rise by several feet, flooding coastal areas and ruining vast tracts of farmland through salinization.[26] It would also affect weather patterns, creating dramatic changes in the climate and altering vegetation types in much of the world.[27] The United Nations Development Program recently stated that only the devastation of a nuclear war could equal the global effects

18. Sancton, *What on Earth Are We Doing?*, TIME, Jan. 2, 1989, at 24. Scientists estimate that at least 12% of bird species in the Amazon, and 15% of plants in Central and South America can be counted among the "living dead," having little chance for continued survival. Linden, *supra* note 16, at 34.

19. *Tropical Forests*, *supra* note 15, at 36.

20. Goodland & Ledec, *supra* note 17, at 6.

21. Linden, *supra* note 16, at 32. Thomas Lovejoy, former Vice President of Science of the World Wildlife Federation, set up a 20 year experiment in 1979 to determine how large a forest must be to sustain itself. So far he has concluded that the smaller a forest is, the faster the decline of insect, bird, and mammal species. *Id.*

22. Sancton, *supra* note 18, at 26; *Tropical Forests*, *supra* note 15, at 36.

23. This phenomenon is commonly known as the "greenhouse effect." Carbon dioxide and other greenhouse gases are relatively transparent to the visible and near-infrared wavelengths that carry most of the heat energy of sunlight, but they absorb the longer infrared wavelengths emitted by the earth more efficiently than other gases. Thus, excesses of atmospheric carbon dioxide allow more heat from the sun to reach the earth, while inhibiting the escape of heat radiated from the earth's surface. Schneider, *The Greenhouse Effect: Science and Policy*, SCIENCE, Feb. 10, 1989, at 772, *reprinted in Foreign Operations*, *supra* note 2, pt. 4, at 206-07.

24. *Id.*

25. Sancton, *supra* note 18, at 28. Some scientists, however, claim that the build-up of atmospheric carbon dioxide will not cause global warming or that natural processes will mitigate the effects. *Id.*

26. *Id.*

27. *Foreign Operations*, *supra* note 2, pt. 4, at 46-50 (testimony of H.H. Shugart, Professor of Environmental Sciences, University of Virginia). Professor Shugart estimates that under current models which predict a doubling of atmospheric carbon dioxide levels, about 35% of the terrestrial surface might be climatically shifted from one vegetation type to another. *Id.* at 47.

of the destruction of the rain forests.[28]

Against this apocalyptic scenario, a global environmental consciousness has arisen, focused largely on the Central and South American countries that house the tropical rain forests. Protecting the rain forests is now a virtual necessity, and where satisfactory protections cannot be imposed, they must be purchased. The rise of a market for discounted debt owed by many of the tropical countries has provided convenient capital for the purchase.

II. The Relationship of the Environmental Crisis to the Debt Crisis

This section examines the relationship of economic and environmental problems in developing countries. This relationship has two important components. First, the debt crisis leads developing countries to exploit their natural resources through environmentally destructive commercial activities. Second, those destructive activities inhibit long-term economic development.

A. Mutual Causality

Both the ascendence of developing country debt and of the environment as international market commodities are not wholly independent phenomena. Many of the externally funded developmental projects which contributed to the accrual of current debts also contributed to the current environmental crisis.[29] Furthermore, the developing countries' burden of trying to repay their external debt has also caused, or at least exacerbated, many of the most compelling environmental problems, most notably rapid deforestation.[30]

The severity of the debt crisis forces lesser developed countries (LDCs) to halt many developmental activities, as well as environmental programs, and instead search for "quick fix" solutions which generate maximum revenues quickly. In Brazil, for example, quick fix solutions

---

28. *Tropical Forests*, *supra* note 15, at 36.

29. *See* Plater, *Multilateral Development Banks, Environmental Diseconomies, and International Reform Pressures on the Lending Process: The Example of Third World Dam-Building Projects*, 19 B.C. THIRD WORLD L.J. 169 (1989); S. GEORGE, *supra* note 11, at 155-68 (detailing the "ecocide" resulting from several World Bank-funded projects); *Foreign Operations*, *supra* note 2, pt. 6, at 534-72 (statement of Bruce M. Rich on behalf of the Environmental Defense Fund and National Wildlife Federation).

Three of the World Bank's projects in Brazil—the Polonoroeste Project, the Carajas Iron Ore Mine and Railroad Project, and the Power Sector Loans—currently involve more than $1.5 billion in loans to Brazil, as well as massive deforestation in the Amazon. The Carajas Project alone will likely deforest an area of about 58,000 square miles within 20 years. *Id.* at 555, 538.

30. S. GEORGE, *supra* note 11, at 155-68.

Conversely, the destruction of the environment often serves to cut short the useful life of the very projects which caused the destruction. For example, erosion and sedimentation caused by deforestation inhibit water flow to hydroelectric dams built in the rain forest, sometimes cutting their useful life in half and reducing their productivity by as much as 80%. *Id.* at 163-64; Reid, *Sustainable Development: Lessons From Success*, ENVIRONMENT, May 1989, at 8.

include clear-cutting of the rain forests, which accommodates the use of cut trees for timber export and domestic fuel consumption, and the use of the land for farming and cattle ranching.[31]

The quick fix solutions not only contribute to long-term degradation of the global environment but also inhibit long-term economic development by exhausting the debtor nation's natural resources. Tropical forestland converted to agricultural and livestock uses loses its productivity in one to three years, leaving the lands depleted and useless.[32] Nevertheless, indebted nations continue to provide generous tax and credit incentives for such uses because they need the immediate revenues those uses produce.[33] Productive uses of rain forest land which do not destroy the forest, such as rubber tree tapping and "extractive" farming, produce less immediate revenues than quick fix solutions but are more profitable in the long run since they are renewable.[34] Over a ten year period, the net present value of the land favors conversion to agricultural and ranch use, but for any period beyond ten years, the land is more valuable for extractive use.[35]

The current debt burden forces many nations into shortsighted revenue maximization. Debtor nations in effect mortgage their economic future and the future of the global environment in an attempt to meet current debt obligations. While a number of other factors have contributed to both problems, the debt crisis serves to exacerbate environmental problems, and the destruction of the environment often exacerbates the debt crisis by depleting usable natural resources. Thus, a complete remedy for developing nations must address both debt relief and environmental protection.

B. Mutual Solutions

In Third World countries the problem of debt relief is symptomatic of a more rudimentary problem — how to foster sustainable long-term development.[36] Like the problem of debt relief, the cause of the devel-

31. Hultkrans, *Greenbacks for Greenery*, SIERRA, Nov./Dec. 1988, at 43; Hecht & Cockburn, *Defenders of the Amazon*, NATION, May 22, 1989, at 695.

32. Reid, *supra* note 30, at 8.

33. *Government Policies Promote Deforestation*, BIOSCIENCE, Sept. 1988, at 540; Hultkrans, *supra* note 31, at 43.

In some cases, these credits encourage inefficient economic activities. In the Philippines, for example, inefficient wood processing plants subsidized by the government lost $500 million in potential revenues between 1979 and 1982. *Government Policies Promote Deforestation*, *supra*, at 540. In parts of Brazil, unprofitable ranches are kept in operation only because of large government subsidies. Reid, *supra* note 30, at 9.

34. Reid, *supra* note 30, at 33.

35. *Id.*

36. For a discussion of the global benefits of environmental protection, see *supra* notes 15-28 and corresponding text.

The economic benefits of development in foreign countries come in at least two forms. First, economic development enables developing nations to repay their debts to creditors in developed nations. Second, economic recovery in developing nations will increase the demand for export products from industrialized nations. The

opment problem can be linked with the lack of environmental protection.[37] Recognizing the mutual causality of these problems is the crucial first step in finding a long-term solution to either. Historically, mutual causality has rarely been recognized. Indeed, few programs have simultaneously addressed both environmental and economic problems.

The limited and divergent perspectives of environmentalists and economic planners have resulted in few mutual solutions. Foreign creditors, as well as developing country borrowers, traditionally do not take into account the environmental benefits of rain forest conservation in the cost-benefit calculus precedent to project loans and debt relief programs.[38] While economic and environmental concerns are not always viewed as antagonistic, bankers seldom view them as co-dependent. Environmentalists traditionally have taken an absolutist stance. Industrialization tends to polarize economic and environmental concerns, resulting in a perception that conservation must be achieved through environmental protectionism rather than through accommodation of commercial activity.[39] Furthermore, environmentalists generally lack economic or political power to influence financial and developmental policies of commercial banks and debtor nations.[40]

---

mounting developing country debt burden in the 1980s has drastically reduced consumption of U.S. imports in those countries, resulting in unemployment and an increased trade imbalance in the U.S. In 1983, U.S. Under Secretary of Commerce Lionel Olmer estimated that the decline in Mexican imports alone from 1981 to 1982 may have resulted in the loss of as many as 250,000 jobs in the U.S. V. AGGARWAL, INTERNATIONAL DEBT THREAT: BARGAINING AMONG CREDITORS AND DEBTORS IN THE 1980s 36 (1987).

U.S. exports to Latin America decreased by approximately $11 billion between 1981 and 1986. *Banking Committee Provisions of the Trade Bill, Hearings before the Subcomm. on International Trade and Monetary Policy of the House Comm. on Banking, Finance and Urban Affairs*, 100th Cong., 1st Sess. 201 (1988) (statement of Jeffrey Sachs, Harvard University). *See generally Impact of the Latin American Debt Crisis on the U.S., Hearing before the Subcomm. on International Debt of the Senate Comm. on Finance.*, 100th Cong., 1st Sess. (1987) (testimony regarding economic consequences of the Latin American debt crisis in the U.S.).

37. *See supra* notes 30-35 and accompanying text.

38. For example, the World Bank's charter provides that in the deliberations of the Bank and its officers, "Only economic considerations shall be relevant to their decisions, and these considerations shall be weighed impartially in order to achieve the purposes stated in Article 1 [instructing the bank to make loans for productive development]." ARTICLES OF AGREEMENT OF THE INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT art. IV, § 10 (1945).

39. *See* Muldoon, *The International Law of Ecodevelopment: Emerging Norms for Development Assistance Agencies* 22 TEX. INT'L L.J. 1, 9 (1986).

40. Several recent U.S. statutes attempt to give private organizations, including environmental groups, greater ability to influence the lending practices of the U.S. and the World Bank. The "Grassroots Collaboration Program," established by statute in 1987, encourages participation of nongovernmental organizations in the design, implementation, and monitoring of World Bank-funded projects. 22 U.S.C. § 262p-1 (1987). Another statute instructs the U.S. President to place a high priority on promoting rain forest protection through foreign aid. The statute specifically instructs the President, whenever feasible, to accomplish that objective "through projects managed by private and voluntary organizations or international, regional, or national nongovernmental organizations . . . ." 22 U.S.C. § 2151p-1(d) (1986).

International financial institutions, including the World Bank and the regional development banks,[41] have recently made efforts to consolidate environmental and economic concerns in their lending policies.[42] The World Bank and the regional development banks have increased the environmental review of projects which they fund and condition their loans upon compliance with environmental protection standards.[43] The World Bank intends to substantially increase lending for specific environmental projects, including reforestation.[44] Although the environmental returns of these policies thus far have been minimal,[45] the reforms they promise are significant in recognizing the need for and viability of mutual solutions to environmental and economic problems.

The World Bank and regional development banks are charged with promoting development in Third World nations, so recognition of the mutuality of environmental and economic concerns mandates accounting for environmental impacts.[46] Commercial lenders, however, have no such obligations to environmental concerns. Although development in foreign nations is in their best interests, the interests of commercial banks are generally limited to seeking return on their immediate investments, with little regard for broader developmental policy.[47] Moreover, commercial banks provide most of the lending in developing nations,[48] so economic activity in these nations is largely unconstrained by the environmental conditions on World Bank loans.

---

41. The regional development banks are the Inter-American Development Bank, the African Development Bank, and the Asian Development Bank. *Foreign Operations*, *supra* note 2, pt. 4, at 238.

42. *Id.* at 238-69.

43. *Id.* at 244; Holden, *The Greening of the World Bank*, SCIENCE, June 17, 1988, at 1610.

44. *Foreign Operations*, *supra* note 2, pt. 4, at 255; Grieves, *Poverty as Pollution*, FORBES, Nov. 14, 1988, at 204.

45. *See Foreign Operations*, *supra* note 2, pt. 4, at 237; and sources cited *infra* note 148.

46. The World Bank was established at the Bretton Woods Conference in 1944 to help fund reconstruction in Europe after World War II. Today, the Bank's primary function is to finance investments for development in its member nations. ARTICLES OF AGREEMENT, *supra* note 38, art. I; Gold, *The Relationship Between the International Monetary Fund and the World Bank*, 15 CREIGHTON L. REV. 499, 504 (1982). Since the late 1960s, countries have gradually come to realize that environmental protection is a necessary component of development. Muldoon, *supra* note 39, at 9-21; Report of the U.N. Conference on the Human Environment, 11 I.L.M. 1416 (1972). Thus the Bank's developmental mandate requires a consideration of environmental protection.

47. G. BIRD, COMMERCIAL BANK LENDING AND THIRD WORLD DEBT 22 (1989).

> [Commercial banks] will undoubtedly see their principal responsibility as being to their shareholders, and they are likely to take the view that these interests are best served in an uncertain world environment by trying to maximize short-run private profits: it may be unreasonable to expect them to assume the global role of maximizing world economic welfare.

Id.

48. More than two-thirds of the external debt of highly-indebted countries is owed to commercial creditors. WORLD BANK, WORLD DEBT TABLES 1988/89, vol. I, at xl.

The majority of lenders have failed to perceive the need for mutual solutions to environmental and economic problems, prompting environmentalists to seek mechanisms by which they can interject environmental concerns into economic transactions. For the most part, mutual solutions have not arisen from recognition of mutual causality, but rather from a convenient alliance of bankers and environmentalists in market transactions. Environmental organizations have seized upon the growing secondary market for foreign debt as a means of negotiating environmental protections in foreign countries.

III. Debt-for-Nature Swaps

A. The Setting

As rampant inflation raised the spectre of default on foreign loans, creditors came to view some form of debt relief as a necessity.[49] Banks and corporations turned to the secondary debt market to create mutually advantageous debt-exchange programs. Investors could purchase deeply discounted debt and allow the foreign debtors to divert loan payments directly into commercial activity within the debtor nation. The investors would then receive an equity interest in the commercial activity.[50] These "debt-for-equity" swaps are intended to stimulate economic growth through investment in the debtor nation, while providing some return in the form of equity to the new creditor.[51]

Debt exchanges can be attractive from the perspectives of all interested parties. Parties seeking to invest in ventures within debtor nations can increase the per-dollar value of their investment. By purchasing debt at a discount and exchanging it for an equity interest equal to the face amount of the debt, investors receive a significant benefit.[52] While the bank selling the loan takes a loss on the sale, it obtains the benefit of decreasing its exposure to risks of default by debtor nations.[53] The bank is also able to deduct the loss realized on the sale.[54] The debtor

49. V. AGGARWAL, *supra* note 36, at 14.

50. Chamberlin, Gruson & Weltchek, *supra* note 1, at 418.

51. Debt equity swaps generally do not provide any benefits in the form of debt reduction or forgiveness; they merely change the form of the obligation. By converting some debt requiring immediate repayment into other liabilities in the form of equity interests, developing nations may be better able to meet remaining immediate obligations. Moreover, the increased financing for public and private economic endeavors might attract other foreign investment. R. DEBS, D. ROBERTS & E. REMOLONA, *supra* note 2, at 16.

52. Shubin & Gibby, *The Promotion of Debt Equity Swaps in Latin America: A Survey of the Regulatory Regimes and the International Policy Framework*, 20 U. MIAMI INTER-AM. L. REV. 31, 64 (1988). On the secondary market foreign debt has been discounted as much as 80% below the original loan amount. *See* R. DEBS, D. ROBERTS & E. REMOLONA, *supra* note 2, at 21.

53. The discounts set by the banks reflect, primarily, the prospects for loan repayment, although they may also be affected by the degree to which creditors and debtors are unable to agree upon specific rescheduling programs. R. DEBS, D. ROBERTS & E. REMOLONA, *supra* note 2, at 20.

54. Rev. Rul. 87-124, 1987-2 C.B. 205.

nation will still have to repay the debt amount — usually to a corporation within its own borders — but the conversion of the form of the obligation eliminates the accrual of interest payments.[55] In contrast, under debt rescheduling plans, the debtor nation can defer repayment of the principal amount almost indefinitely, but must keep interest payments current.[56] The burden of paying the interest alone can seriously inhibit development.[57] Furthermore, converting the debt obligation into productive investment in the debtor nation will, ideally, promote growth in that nation and attract further investments. The multiple benefits of debt exchanges have attracted many investors,[58] leading to numerous forms of such transactions.[59]

B. The Structure

1. The Bolivian Debt-for-Nature Swap

The rise of debt-for-equity swaps in the mid-1980s paved the way for debt-for-nature swaps. In July 1987, Conservation International (CI), a U.S. environmental organization, arranged a debt-for-nature swap.[60] Pursuant to an agreement,[61] CI purchased $650,000 of Bolivia's commercial debt from Citicorp for $100,000, or 15 cents per dollar of debt. CI cancelled this debt in exchange for Bolivia's agreement to demarcate 3.7 million acres of tropical forest around the existing Beni Biosphere Reserve as a protected area.[62] Bolivia also established a $250,000 fund in local currency to manage the biosphere reserve,[63] and CI agreed to assist in managing the area. The protected area was not set aside purely for conservation uses, but rather to create a "buffer zone" around the existing reserve. The agreement allows controlled commercial activities in the buffer zone, subject to environmental regulations, including

55. Buchheit, *Alternative Techniques in Sovereign Debt Restructuring*, 1988 U. ILL. L.REV. 371, 374 (1988).

56. *Id.*

57. Brazil, for example, made payments of $4.7 billion in interest in 1987, compared with $2.9 billion in repayment of principal. WORLD BANK, *supra* note 48, vol. II, at 42.

58. In 1988, more than $40 billion in foreign debt was sold on the secondary market. *Id.* at vol. II, 1st Supp., at xiii. Not all of these sales led to debt exchanges. In some cases, banks trade debt holdings with other creditors to decrease the amount of their exposure in a particular country. *Id.* at vol. I, xxiii. Between 1984 and 1989, debt exchanges reduced the debt of the 15 most heavily indebted nations by about $20 billion, or roughly four percent of their external debt outstanding at the end of 1988. WORLD ECONOMIC OUTLOOK: A SURVEY BY THE STAFF OF THE INTERNATIONAL MONETARY FUND 54 (Apr. 1989).

59. Alternative forms of commercial debt exchanges, known as debt for debt swaps and debt for peso swaps, are discussed in R. DEBS, D. ROBERTS & E. REMOLONA, *supra* note 2, 21-22, 24-25.

60. Christian Science Monitor, Nov. 24, 1987, at 15, col. 1; *see also* Hultkrans, *supra* note 31, at 44.

61. *Agreement Between the Government of Bolivia and Conservation International, reprinted in part* in 19 U. MIAMI INTER-AM L.J. 515 (1987/88) [hereinafter *Bolivian Agreement*].

62. *Id.*

63. *Id.*

equivalent reforestation for each tree cut down in the project.[64] Thus, through a creative transaction, the CI program sought to reconcile commercial development with conservation.

2. The Ecuadorian Debt-for-Nature Swap

In December 1987, the World Wildlife Fund (WWF) arranged a larger agreement with Ecuador under which WWF may purchase from U.S. banks up to $10 million face value of Ecuador's debt at a market discount.[65] The full amount of the debt will then be converted by Ecuador's central bank into local currency bonds, which will be held by Fundacion Natura, an Ecuadorian conservation agency.[66] The interest on the bonds will be used to finance a variety of conservation projects and, upon maturation, the principal amount will become an endowment for Fundacion Natura. This swap contains both conservational and developmental components. Some funds generated by this program have established specifically protected areas. Other funds have been used to maintain existing environmental protection and development programs.[67]

3. Structural Variations

The Ecuadorian swap differs from the Bolivian swap in several respects. First, rather than establishing specific new protected areas, funds in the Ecuadorian swap are being used to finance existing conservation activities which may have been neglected in the country's attempt to raise funds to meet its debt obligations.[68] While this arrangement lacks the symbolic beauty of protecting an identifiable plot of rain forest land, it has the advantage of vesting greater autonomy in existing agencies and programs of the debtor nation, thus lessening the perception that foreign creditors are buying the rain forests — a perception that may be the largest impediment to debt-for-nature swaps.[69]

Secondly, by issuing bonds rather than cash, Ecuador reduced the threat of inflation resulting from immediate conversion of debt into local currency.[70] To convert debt into currency the debtor nation must either divert funds from other programs — which is often infeasible or improvident — or print new money, contributing to already staggering inflation levels.[71] While issuing bonds may merely postpone the infla-

64. Collet, *Bolivia Blazes Trail . . . To Where? Conservation Measures Appear to have Taken a Back Seat to Commercial Logging Interests*, Christian Science Monitor, July 10, 1989, at 4, col. 1 (also indicates that companies in Bolivia have yet to plant a single tree despite the reforestation requirement).

65. *Conservation Groups Help*, *supra* note 10, at 36.

66. *Id.*

67. *Id.*

68. *See* Chamberlin, Gruson & Weltchek, *supra* note 1, at 443.

69. *Id.* at 441 n.103.

70. *Conservation Groups Help*, *supra* note 10, at 36.

71. Petesch & Annis, *Debt For Development Plan is No Gift for Third World*, L.A. Times, Dec. 9, 1987, § II, at 7, col. 1.

tionary impact, the intervening period may offer valuable time in which the debtor nation, with the aid of other debt-relief measures, can work towards development and economic stabilization. To this end, debt-for-nature swaps should be fully integrated with other debt relief strategies to ensure that the effects of restructured and rescheduled debts do not conflict with other obligations or compound inflation. Issuing bonds rather than currency also provides better long-term funding of environmental activities by providing annual interest payments and ultimately an endowment.[72]

Finally, the funds of the Ecuadorian swap are earmarked for purely conservationist activities, while the Bolivian swap attempts to reconcile commercial activities with conservation.[73] Accordingly, the form of the Bolivian swap is sometimes referred to as a debt-for-development swap rather than a debt-for-nature swap. A debt-for-development swap seeks to accommodate long-term social and economic development by any number of means, including reduction of local poverty levels, improvement of education and health standards, and protection of the environment.[74]

4. Individualized Solutions

The differing programs established in Bolivia and Ecuador do not necessarily reflect the evolution of better debt exchange techniques, but rather the need for specific solutions to individualized problems.

The debtor nation is primarily responsible for defining the structure of the swap.[75] Assent of the debtor nation to proposed debt-for-

72. *Conservation Groups Help*, *supra* note 10, at 36.

73. Conservation International intended to show to Bolivia that "conservation can work in harmony with agriculture, forestry, fisheries and other economic development projects." Collet, *supra* note 64, at 4. The Bolivian swap, however, has been criticized as failing to meet this objective. *Id.*

74. The U.S. Director of the World Bank is statutorily instructed to propose that the World Bank provide advice and assistance to nations wishing to engage in debt for development swaps. 22 U.S.C. § 262p-4c (1988). Debt-for-development swaps are defined in the statute as the "purchase of qualified debt by, or donation of such debt to" a tax-exempt charitable organization, and "subsequent transfer of such debt to an organization in such foreign country in exchange for an undertaking by such tax-exempt organization, such foreign government, or such foreign organization to engage in a charitable, educational or scientific activity." *Id.* at § 262p-4c(b)(2)(A). The statute further states that such charitable, educational, or scientific activities include "environmental conservation, education, human welfare, agricultural research and development, microenterprise credit, and development of indigenous nonprofit organizations. *Id.* at § 262p-4c(a)(1).

75. *Foreign Operations*, *supra* note 2, pt. 5, at 104 (statement of Ambassador Alan Woods, Administrator, Agency for International Development); Chamberlin, Gruson & Weltchek, *supra* note 1, at 448-49. The substance of debt-for-nature swaps depends upon what the debtor nation is willing to offer in exchange for a release from the debt repayment. Creditors play a substantial role in negotiating the exchange, but generally are limited by the scope of environmental concessions the debtor nation is willing to make. Given the variety of creditors holding its debt, only the debtor nation can develop programs that incorporate individual exchanges into its overall economic strategy. *Id.*

nature swaps depends on the degree to which the program can address the specific needs and concerns of that nation. In some countries, the spectre of external control over natural resources is the greatest hindrance to agreement, whereas others nations welcome the administrative aid of charitable organizations.[76] Some countries may prefer to immediately convert debt into currency rather than long-term bonds. In April 1989, for example, Ecuador converted $9 million of debt purchased by WWF and the Nature Conservancy into currency, representing the first debt-for-nature swap in which the full face value of the debt was redeemed in local currency.[77] Moreover, the funds from that swap are being used to establish specific protected regions totalling some 2.5 million acres in the Andean Region and Ecuadorian Amazon.[78] The form of conversion and use of funds will be largely a matter of the debtor's preference, subject to negotiation. Some debtor nations have already drawn up specific debt exchange programs to accommodate foreign creditors wishing to engage in debt for equity swaps,[79] but most nations conduct debt-for-nature swaps largely on an ad hoc basis.[80]

C. Limitations of Debt-for-Nature Swaps

Notwithstanding the potential benefits of debt-for-nature swaps, there are several problems which limit their effectiveness or prevent their realization. The three largest owners of tropical forest land — Brazil, Zaire, and Indonesia[81] — have maintained three reasons for resisting debt-for-nature swaps. First, debt-for-nature swaps infringe on national sover-

76. *See* Piddington, *Sovereignty & the Environment*, ENVIRONMENT, Sept. 1989, at 18.

77. Weisskopf, *Ecuador Gets Aid For Debt, Environment*, Wash. Post, Apr. 6, 1989, at A20, col. 6.

78. *Id.*

79. *See generally* M. DEFARIA, D. STOTT & T. BUCHANAN, *supra* note 2 (outlining formal debt exchange programs of several debtor nations).

80. So far only one country, Nigeria, has proposed a formal program stating guidelines for exchanges involving non-commercial activities such as environmental conservation. Chamberlin, Gruson & Weltchek, *supra* note 1, at 448 n.118.

Since 1987, debt-for-nature swaps have also been effected in Costa Rica, the Philippines, and Madagascar, with more than $15 million in foreign debt being converted to conservation activities. Work & Smith, *Using Red Ink To Keep Tropical Forests Green*, U.S. NEWS & WORLD REP., Mar. 6, 1989, at 49; *Madagascar: A Debt to Nature*, ECONOMIST, Aug. 19, 1989, at 31. Debt-for-nature swaps are also under consideration in Brazil, Jamaica, Mexico, Nigeria, Peru, Poland, Tanzania, and Venezuela. Chamberlin, Gruson & Weltchek, *supra* note 1, at 445. Recently, several debtor nations have issued pleas for such swaps to fund environmental protection, and the desire to participate apparently now exceeds the capacity of environmental organizations such as the WWF to accommodate them. *See* Hulktrans, *supra* note 31, at 44 (Costa Rica issued plea for debt-for-nature swaps); *The Proposed General Capital Increase for The World Bank, Hearings Before the Subcomm. on International Development Institutions and Finance of the House Comm. on Banking, Finance & Urban Affairs*, 100th Cong., 2nd Sess. 133-35 (1988) (President of African Bank calls for debt-for-nature swaps).

81. These three nations own 48% of the world's tropical forests. *Foreign Operations*, *supra* note 2, pt. 4, at 11.

eignty by vesting control over natural resources in foreign creditors.[82] Second, debt-for-nature swaps are too small to be of any consequence.[83] Finally, any prohibitions on commercial use of natural resources are economically impractical.[84] To these criticisms a fourth should be added, namely, that due to both their size and structure debt-for-nature swaps are largely ineffective as a means of preventing continued destruction of the rain forests. This section will examine these four criticisms.

1. Sovereignty

Several critics, the Brazilian government foremost among them, have stated that the environmental conditions imposed by debt-for-nature swaps interfere with the sovereignty of the debtor nation.[85] This objection takes two related forms. First, critics allege that debt-for-nature swaps vest control over the debtor nation's land and resources in foreign creditors, equating the transaction with a sale of land.[86] Secondly, critics claim that debt-for-nature swaps facilitate the imposition of foreign projects and values.[87] These criticisms are largely unjustified.

A flexible approach to negotiating debt-for-nature swaps can eliminate most concerns over the imposition of foreign projects and values. Debt-for-nature swap proposals are subject to the review and approval of the debtor government. Moreover, most debt-for-nature swaps have been proposed by local groups within debtor nations as a means of increasing the effectiveness of their own projects.[88] Since debt-for-nature swaps are negotiated and approved by the debtor nation and generally are defined, and often managed, by local groups, there is little chance for environmental organizations to "impose" foreign control.

Likewise, debt-for-nature swaps do not involve the transfer of any right of ownership or control to the foreign creditors.[89] The debtor nation may agree not to exploit certain regions, yet retain regulatory power over the region's use. Environmental groups offering debt-for-nature swaps seek to secure environmental protections, not to obtain title to the land.

Although sovereignty concerns are largely unjustified, they remain

82. *Id.* at 12.

83. *Id.*

84. Work & Smith, *supra* note 80.

85. Under international law each nation has an inalienable right to exploit its own resources in conformity with its national policies. *U.N. General Assembly Resolution on Permanent Sovereignty Over Natural Resources*, G.A. Res. 1803 (xvii), 17 U.N. GAOR Supp. (No. 17) at 15, U.N. Doc. A/5217 (1962).

86. Chamberlin, Gruson & Weltchek, *supra* note 1, at 441 n.103; Petesch & Annis, *supra* note 71, at 7; Piddington, *supra* note 76.

87. Chamberlin, Gruson & Weltchek, *supra* note 1, at 441 n.103.

88. *Id.* Conservation organizations negotiating debt-for-nature swaps recognize the need for support by local groups to effectuate environmental protections and thus prefer to allow local groups to define the scope of the environmental program.

89. *See, e.g., Bolivian Agreement, supra* note 61, at 515.

perhaps the largest impediment to debt-for-nature swaps in Brazil.[90] While Brazil has recently enacted modest environmental reforms,[91] it has refused to accept debt-for-nature swaps as a means of funding such reforms.[92] Brazil apparently does not, as a matter of policy, oppose establishing protected rain forest areas. However, its leaders view debt-for-nature swaps as establishing a dangerous precedent by creating a perception of foreign economic interests in Brazil's natural resources.[93]

To reduce debtor nation resistance to debt-for-nature swaps, conservation organizations should focus on funding programs proposed and managed by local groups in the debtor nation, rather than on proposing new programs and protected areas. Diminishing the extent to which foreign creditors shape the policy of the swap and the extent to which specific lands and resources are involved in the transaction will lessen the perceived impositions on debtor nation sovereignty.

2. *Limited Benefits*

Some debtor nations feel that debt-for-nature swaps are too small to be of any practical significance. Debt-for-nature swaps offer millions of dollars of debt relief,[94] but many nations owe billions in debt.[95] Debtor nations are concerned that any attention given to debt-for-nature swaps will divert attention from larger solutions.[96]

---

90. Brazil's former President, Jose Sarney, repeatedly stated that debt-for-nature swaps are an unacceptable "form of colonialism." Rowen, *supra* note 7, at H10.

91. Brazil's new constitution, which took effect October 5, 1988, contains provisions for grants of "extractive reserves," i.e., legally protected forest areas designated for exclusive use by rubber tappers, nut gatherers, and other "extractivists." Rain forest communities have received long term (up to 30 year) renewable contracts for the use of the land. This program has met with substantial resistance from ranchers, often culminating in violence. On December 22, 1988, assassins hired by ranchers killed a prominent rubber tapper. Fearnside, *Extractive Reserves in Brazilian Amazonia*, BIOSCIENCE, June 1989, at 387; Hecht & Cockburn, *supra* note 31, at 695.

In early 1989, President Jose Sarney announced a plan for increased environmental reform. Called "Our Nature," the program includes zoning regions for limited uses, temporarily suspending raw timber exports, and reducing tax incentives to Amazon cattle ranchers. Semill, *A Dubious Plan for the Amazons*, TIME, Apr. 17, 1989, at 67.

92. Semill, *supra* note 91, at 67.

93. When President Sarney announced his new environmental program, he reiterated his rejection of debt-for-nature swaps. The program's title, "Our Nature," reinforces Brazil's claim that the Amazon forests belong to Brazilians, not to the world. *Id.*

94. The debt-for-nature swaps so far executed have converted approximately $25 million in developing country debt. *See* sources cited *supra* note 80.

95. The total of developing country debt is approximately $1.3 trillion. INTERNATIONAL MONETARY FUND, WORLD ECONOMIC OUTLOOK 186 (Apr. 1989). Brazil's outstanding debt is roughly $106 billion, and Indonesia owes approximately $45 billion to foreign creditors. WORLD BANK, *supra* note 48, at 42, 190.

96. This objection was raised by the Ministers of Economics of Brazil, Zaire, and Indonesia at a 1989 meeting. *Foreign Operations*, *supra* note 2, pt. 4, at 11-12.

It is possible, however, that Brazil's resistance to debt-for-nature swaps will actually hinder the offering of other forms of debt relief. Senators Albert Gore (D-Tenn.), John Heinz (R-Pa.), and Tim Wirth (D-Colo.) have suggested that the U.S.

The amount of debt converted in debt-for-nature swaps is limited primarily by the debtor nation. The size of the transaction will depend upon how much converted debt the debtor nation is willing to invest in environmental programs. Environmental protections are generally viewed as unprofitable, and thus major capital commitments to conservation rather than economic development is counterproductive.[97]

Debt-for-nature swaps also involve complex multiparty negotiations. Therefore, the transaction costs of reaching an agreement may seem unjustified by the relatively small scope of the exchange. The transaction costs result from the number of parties involved and the lack of established mechanisms for structuring such swaps. One significant issue in negotiating debt-for-conservation swaps is putting a dollar value on the land to be protected. Parties will have to agree on how many square miles (or hectares) of rain forest can be protected with a given amount of debt relief. Parties will also have to agree upon methods of implementing the conservation programs. With little or no precedent on which to rely, resolving these issues may require substantial negotiations.

Debt-for-nature swaps which fund existing programs rather than "purchase" protection for specific areas will eliminate the need to establish arbitrary prices for environmental protections. Moreover, funding existing programs eliminates the need to establish mechanisms for carrying out the conservation measures.

One means of making debt-for-nature swaps more attractive is through cooperation among creditors to incorporate the swaps into larger debt relief plans. Were debt-for-nature swaps to be included in a "package" of debt relief, they would be viewed as accommodating larger debt relief strategies rather than diverting attention from them. Furthermore, if such packages were offered, the transaction costs of negotiating individual debt-for-nature swaps would to some extent be absorbed by the overall transaction.

3. Economic Impracticality

Much resistance to debt-for-nature swaps stems from the reality that debtor nations cannot foreclose access to natural resources needed for commercial activities. Developing countries place great reliance on their natural resources to produce revenues and foster development. For example, ninety-eight percent of Bolivia's exports are "primary products": fuels, minerals, metals, and agricultural products. Many other developing countries in Latin America and Africa have similarly high rates of resource dependence.[98] Countries in the Amazon whose

refuse to give Brazil significant debt relief unless they compromise on rain forest protections. Rowen, *supra* note 7, at H10.

97. This attitude was expressed by Brazil's interior Minister João Alves, who said "We understand the Amazon's ecological value, but we have to create 1.7 million new jobs each year and must tap its resources." Work & Smith, *supra* note 80, at 49.

98. MacNeil, *supra* note 11, at 158.

rain forests comprise a large part of the topography must exploit these areas in order to foster economic growth.

In Brazil, which houses thirty percent of the world's rain forests, activities which destroy the rain forests have long been a substantial part of the national economy. Cattle ranching and farming on converted rain forest land were, until recently, subsidized by generous tax credits from the government because of the substantial revenues these activities initially produce.[99] Timber cut from the rain forest produces significant export revenues, and wood still accounts for a large part of Brazil's energy use in rural areas.[100]

While extractive, renewable uses may be more profitable in the long run, Brazil may not be able to afford the short-term costs of discontinuing current commercial practices for which a ready market exists. Restricting commercial logging in the rain forests, for example, would deprive Brazil of its substantial timber export revenues. Japan, which annually imports forty percent of the world's trade in tropical hardwoods from rain forests, recently began importing timber from the Brazilian Amazon after supplies elsewhere were depleted.[101]

The rural poor constitute the majority of Brazil's population, and many of them in the Amazon and elsewhere rely on farming and ranching for their livelihoods.[102] Turning the Amazon into a wildlife preserve would greatly exacerbate local poverty, increase demands on depleted government social programs, and decrease revenues from the foreclosed activities. Despite the theoretical correctness of avoiding imminent environmental harm, environmentalists cannot ignore a cost-benefit analysis in seeking to effectively protect the rain forests.[103]

D. Limitations of Environmental Protectionism

Conservation reserves created through debt-for-nature swaps may coexist with the traditional revenue-producing activities such as ranching and farming. Debt-for-nature swaps which establish specifically protected areas currently cover only a small portion of the rain forests in participating countries. Thus, even with such programs in place, environmentally destructive commercial activities may continue in other

99. *See id.*; *Government Policies Promote Deforestation*, *supra* note 33; Reid, *supra* note 30, at 9, 32.

100. *Tropical Forests*, *supra* note 15, at 37-38.

101. *Id.* at 37.

102. The Brazilian Government has enticed vast numbers of poor settlers to the rain forests with subsidies for farming, ranching, and clearcutting. *Id.* Brazil has a highly inequitable wealth distribution, under which rain forest dwellers live on incomes far below the per capita average. C. CARVOUNIS, *supra* note 11, at 171, 174. Among rural Brazilian workers counted as "economically active," 27.3% receive no real salary, while 42.9% received less than or equal to the official minimum salary, which itself is below subsistence levels. The nominal minimum wage in Brazil is, depending on inflation levels, between one-fifth and one-seventh of the amount needed to cover a family's basic needs. S. GEORGE, *supra* note 11, at 122-23.

103. *See supra* note 97 (statement of Jaão Alves); Stavins, *supra* note 8; Fearnside, *Extractive Reserves in Brazilian Amazonia*, BIOSCIENCE, June 1989, at 392.

unprotected areas. This rationalization defeats the purpose of debt-for-nature swaps and exposes a potential flaw inherent in the limited scope of such transactions. While converting the entire rain forest into a reserve is currently economically infeasible, protecting only specific parts of it may offer very little protection to rain forests as a whole.

Debt-for-development swaps such as the one implemented in Bolivia have also proven somewhat ineffective. Under the Bolivian swap agreement, Bolivia was to grant logging rights within the protected area subject to the condition that loggers plant new trees sufficient to replace those they had cut down. While many trees have been cut, as of April 1989 not a single tree had been planted.[104] The Bolivian agreement attempts to affect environmentally destructive commercial activity with environmental protections.[105] To be successful, the plan requires coercive enforcement of the reforestation provisions. If Bolivia fails to enforce those provisions, the environmental protections contemplated by the agreement become worthless.

Both the Bolivian debt-for-development swap and straight debt-for-nature swaps contemplate a coexistence of environmentally destructive activities and environmental protections. Both fail to address the perceived antagonism between economic development and the environment. Rather than seeking concessions to the environment, conservationists should try to make environmental protection attractive to developing nations, or at least economically feasible. Protecting the environment requires not only setting aside reserve areas, but more importantly, reducing reliance on ecologically destructive activities and creating economic incentives for protecting the environment.

IV. Alternative Forms of Debt Exchanges

A. Sustainable Development: Environmental Protection through Economic Growth

There are alternatives to pure debt-for-nature swaps that may both increase economic development and create incentives to protect the environment. The most beneficial form of debt swap would be one which stimulates "sustainable development."[106] In practical terms, this form requires making current environmentally sound commercial activities more profitable and making currently profitable activities more environmentally sound.

Sustainable development practices must be designed on a case-by-case basis, giving special attention to the conditions of a particular environment and the needs of local people. The primary objectives of sus-

104. Collet, *supra* note 64, at 4.

105. *See Bolivian Agreement*, *supra* note 61.

106. "Sustainable development" is defined by the World Commission on Environment and Development as "that which meets the needs and aspirations of the present without compromising the ability of future generations to meet their own needs." Reid, *supra* note 30, at 7.

tainable development techniques are increasing agricultural efficiency, promoting restoration ecology, and promoting efficient energy use.

1. Agriculture

Environmental organizations and scientists working in conjunction with local groups in developing countries have in recent years developed a number of strategies for promoting environmentally and economically sustainable development within the rain forests and in other topographical regions.[107] Previously infertile or degraded lands have been made arable through techniques which increase the productivity of the lands and reduce degradation due to erosion, salinization, and drying of water sources.[108]

Each year, the need to replace degraded agricultural soil causes more than half of the deforestation in the rain forests.[109] "Indeed, degradation of arable land will depress food production 15 and 30 percent between 1975 and 2000."[110] Thus, making farmlands in developing countries sustainable can potentially cut current deforestation in half and foster economic development by increasing crop output and reducing the investment costs of clearing new lands and relocating farms. From both an economic and environmental standpoint, this type of program if properly realized is far more effective than a pure debt-for-conservation swap.

Many of the new strategies provide for greater agricultural and range productivity, including soil and water conservation techniques, intercropping,[111] agroforestry,[112] and organic fertilization. These strategies can be implemented at very low costs, thus increasing the per dollar returns of debt exchanges.[113] Simple techniques can greatly

107. *Id.*
108. *Id.*
109. *Id.* at 8.
110. *Id.*
111. Intercropping is a technique of producing several types of agricultural products on one piece of land to reduce the nutrient depletion often caused by growing a single crop. *Id.* at 29.
112. Agroforestry is a system of tree farming within controlled areas. Trees are maintained and their products, including fruit, nuts, and latex, are harvested. When trees are cut for use as fuel or lumber, they are replaced with seedlings. *Id.* at 34; D. BROKENSHA & A.P. CASTRO, FUELWOOD, AGROFORESTRY & NATURAL RESOURCE MANAGEMENT: THE DEVELOPMENT SIGNIFICANCE OF LAND TENURE & OTHER RESOURCE MANAGEMENT/UTILIZATION SYSTEMS 14-18 (1984).
113. Reid, *supra* note 30, at 29. Much of this knowledge is derived from groups indigenous to developing countries. For example, in tropical forests, farmlands are generally sustainable for only two to three years owing to rapid soil nutrient depletion. Yet local groups in Southern Brazil, by practicing traditional methods of soil enrichment and cropping, are able to sustain productive rain forest farmland for 11 years, with only a five year fallow period. *Id.*

While these simple, high-yielding methods of increasing productivity exist within the developing countries, many debtor nations lack the resources to gather and disseminate this information, educate farmers and ranchers, or supply even minimal amounts of funding to implement these programs. Most nations have environmental and agricultural development agencies, but they are generally among the first to fall

increase agricultural productivity. For example, establishing windbreaks along farmlands can significantly reduce soil erosion and increase soil moisture.[114] Irrigation techniques and controlled grazing can substantially increase sustainability of rangeland. Intercropping—the alternation of crops planted on a single site—reduces soil nutrient depletion.

Establishing programs to increase agricultural efficiency would provide both environmental and economic benefits. Sustainable agricultural practices would enable impoverished rain forest inhabitants to better meet their own subsistence needs and possibly obtain added income from the sale of excess crops.[115] By reducing the need to clear rain forest land for farming, sustainable agricultural practices offer great potential for preserving rain forests without having to impose protectionist measures.

2. Reforestation

Beyond reducing burdens on remaining forest land, developmental aid might also promote restoration ecology in order to revitalize depleted areas. Clear-cut lands suffer from soil erosion including nutrient and water depletion.[116] Reforestation of these areas is not only possible but potentially profitable. A recent pilot program in Haiti, where ninety percent of indigenous forests have been lost since 1950, has demonstrated the economic and environmental benefits of agroforestry, or tree farming.[117] Funded by developmental aid, local peasants reclaimed depleted lands through organized tree planting. Agroforestry has not only provided steady incomes to impoverished people through the sale of wood and tree products, but has restored to decimated lands a capacity for sustainable use.

Trees buffer surrounding soil against erosion and can serve to increase moisture and fertility in the surrounding soil, thereby accommodating further crop production. While agroforestry will not restore the rain forests, it can convert otherwise useless lands to sustainable use and to some degree compensate for the effects of deforestation upon atmospheric carbon dioxide levels. Moreover, by producing timber and other crops, agroforestry can reduce the need for further deforestation

---

under the axe of emergency budget cuts as countries try to service their debts. S. GEORGE, *supra* note 11, at 167.

114. Reid, *supra* note 30, at 29.

115. Poverty among the rural poor is a significant inhibitor of economic and social development in Third World nations. Most debtor nations have very large income disparities between classes, with widespread and severe poverty among the lower classes. *See supra* note 102. Inefficient agricultural production results in food shortages and high food prices. *See* S. GEORGE, *supra* note 11, at 119-53; D. BROKENSHA & A.P. CASTRO, *supra* note 112. Because of these conditions, developmental strategies aimed at industrialization will not effectively promote development in Third World countries. Rather, attention should be focused on relieving local poverty levels and increasing food production. *See* Makgetla, *External Influences on Third World Debt*, 12 HASTINGS INT'L & COMP. L. REV. 591 (1989).

116. Reid, *supra* note 30, at 29.

117. *Id.* at 34; *see supra* note 112.

and can revitalize local economies by fostering profitable development in impoverished areas.[118]

3. Energy Efficiency

Another form of developmental aid with potentially high economic and environmental benefits is the implementation of more efficient energy use techniques.[119] Inefficient energy use contributes to both economic and environmental problems. In the early 1980s, low-income developing countries spent sixty-one percent of their export earnings on oil imports.[120] Biomass, mostly wood, currently accounts for more than forty percent of energy use in developing countries.[121] Developing nations must either spend their revenues on foreign oil or cut trees from their forests for fuel. Increased energy efficiency in cookstoves and other apparatus could reduce both trade imbalances and deforestation in debtor nations, yet less than one percent of all foreign aid to developing nations is earmarked for improving energy efficiency.[122]

B. Debt-for-sustainable-development Swaps

Achieving sustainable development is possible.[123] Developed nations have recently focused foreign aid policies on implementing sustainable development programs in Third World nations.[124] A program of debt-

118. Reid, *supra* note 30, at 34.

119. *See Foreign Operations*, *supra* note 2, pt. 4, at 426-89, 494-30, 533-61.

Many recent plans for increasing energy efficiency in developing countries are cast in terms of "sustainable development." Ironically, many such plans urge greater reliance on biomass for fuel as a means of promoting reforestation. *Id.* at 536. As with employing agroforestry to produce timber, use of biomass resources for energy would encourage reforestation and forest management to insure long-term energy supply. *Id.* Moreover, reducing reliance on foreign oil imports would ease trade imbalances and reduce outflows of capital. *Id.* at 427.

120. Reid, *supra* note 30, at 9.

121. *Foreign Operations*, *supra* note 2, pt. 4, at 429.

122. Reid, *supra* note 30, at 29.

123. *Id.*

124. *See G-7 Summit Leaders' Endorsement of Sustainable Development Welcomed*, 11 Int'l Env't Rep. (BNA) 367 (1988).

A 1986 statute directs the U.S. President to "[p]lace a high priority on conservation and sustainable management of tropical forests" in providing assistance to developing countries. 22 U.S.C. § 2151p-1(c)(1) (1988). The statute lists several sustainable development practices which can help protect the rain forests. The statute states, in part:

> (c) In providing assistance to developing countries, the President shall do the following:
>
> (3) To the fullest extent feasible, support projects and activities—
>
> (A) which offer employment and income alternatives to those who otherwise would cause destruction and loss of forests . . . .
>
> (5) To the fullest extent feasible, help end destructive slash and burn agriculture by supporting stable and productive farming practices in areas already cleared or degraded and on lands which inevitably will be settled, with special emphasis on demonstrating the feasibility of agroforestry and other techniques which use technologies and methods

for-sustainable-development swaps would promote development and environmental protections through existing debt renegotiation techniques.

An optimal debt relief program would produce and implement plans for sustainable development by including funds for agencies or other groups in the debtor nation. Converted debt would be earmarked for research and education in sustainable development techniques, and economic aid to farmers, ranchers, and other local groups seeking to implement such techniques. As with debt-for-nature swaps, various techniques of conversion and remittance of funds could be employed, tailoring the program to fit the developing country's individual needs.

Debt-for-sustainable-development programs may involve an extra element of human capital. Sustainable development projects are the product of cooperation among scientists, government agencies, nongovernmental organizations, and private voluntary organizations.[125] In many developing countries these groups are already devising sustainable development programs. Thus debt exchanges need only provide funding for sustainable development activities on a larger scale.[126]

Debt-for-sustainable-development swaps do not specifically conserve rain forests by establishing protected reserves, although such measures might be included in the bargain. Rather, this arrangement provides indirect protection of rain forests by establishing economic incentives, both at the national and local level, encouraging activities which reduce the burdens on rain forests. Virtually all developing nations realize the gravity of environmental destruction and seek to curb it. Nevertheless, the destruction continues largely as a matter of eco-

---

> suited to the local environment and traditional agricultural techniques and feature close consultation with and involvement of local people.
>
> (6) To the fullest extent feasible, help conserve forests which have not yet been degraded, by helping to increase production on lands already cleared or degraded through support of reforestation, fuelwood, and other sustainable forestry projects and practices, making sure that local people are involved at all stages of project design and implementation . . . .

Id.

125. Reid, *supra* note 30, at 32-35. "Private Voluntary Organizations" (PVOs) is the term of art designating charitable organizations, such as the World Wildlife Federation. "Nongovernmental organizations" (NGOs) generally refers to special interest groups, such as the Brazilian Union of Rubber Tappers. *Id.*

126. A 1987 statute instructs the U.S. Director of the World Bank and the International Development Association to propose a "Grassroots Collaboration Program" aimed at "encouraging nongovernmental organizations in borrowing countries to participate in all stages of [development] project planning and country strategy activities. . . ." 22 U.S.C. § 262p-1 (1988). The statute recognizes that NGOs may have a "distinct comparative advantage" over other entities in administering developmental programs. It specifically recommends "supporting the enhancement of the institutional capacity of nongovernmental organizations in borrowing countries as development practitioners . . . ." 22 U.S.C. § 262p-1(a)(4). This shift in policy towards supporting development through micro-scale administration by NGOs will facilitate debt-for-sustainable-development swaps by establishing specific developmental programs to which exchanged funds can be paid.

nomic necessity. By shifting economic incentives from destructive to non-destructive activities, debt-for-sustainable-development swaps can foster a modicum of economic recovery on a national level, increase living standards at the local level, and allow debtor nations to better pursue their own environmental objectives. Likewise, by avoiding site-specific nature reserves and focusing on local poverty and production activities, this type of swap removes the onus of economic coercion and environmental imperialism, in favor of social and economic cooperation.

Mechanisms for negotiating and implementing debt-for-sustainable-development swaps already exist, but current debt restructuring procedures[127] have inhibited their implementation. Consequently, progress in development and environmental protections have been prevented. Realization of the potential benefits of debt-for-development swaps will require greater involvement from developed nations and multilateral development banks(MDBs). Specifically, the U.S. and the World Bank should take the lead in structuring strategies for debt relief and development including debt-for-sustainable-development swaps.

V. The United States and the World Bank

Both the U.S. and the World Bank have recently expressed stronger commitments to environmental and developmental reforms through legislation and policy statements,[128] yet neither seems poised to implement effectively its espoused policies. Encouraging and facilitating debt-for-sustainable-development swaps may be one means of promoting environmental reforms.

As leaders in international economic policy, the U.S. and the World Bank have the capacity to integrate debt-for-sustainable-development swaps with larger plans of developmental aid and debt relief. Developing nations which rely heavily on commercial banks, MDBs, and foreign governments for continuing economic assistance may take a dim view of a one-time debt-for-development transaction negotiated by a charitable organization. Alternatively, were the U.S. and World Bank to aid in facilitating debt swaps by integrating them into larger debt relief and developmental strategies, they could increase both the swap's attractiveness and its effectiveness in achieving their own ends.

---

127. *See supra* text at pt. III.C.2. Like debt-for-nature swaps, debt-for-sustainable-development swaps would involve several parties and substantial negotiations. Because sustainable development techniques are best administered on local levels, parties may have to negotiate specific programs for specific areas where such programs are not already in place. Furthermore, depending on the amount of funds the debtor nation is willing to commit to sustainable development programs, debtor nations may object that these swaps are too small in comparison to debt-for-equity or other commercial debt exchanges to be of any practical benefit.

128. *See* Holden, *supra* note 43; 22 U.S.C. § 2621. "It is the policy of the United States that sustainable economic growth must be predicated on the sustainable management of natural resources." *Id.* at § 2621(l).

A. Revenue Ruling 87-124

The U.S. has taken steps in the past few years to encourage debt-for-nature and debt-for-development swaps, albeit with little success. In November 1987 the U.S. Treasury announced that it would construe Revenue Ruling 87-124 to allow commercial banks a deduction for the full principal amount of debt donated to charitable activities in debtor nations.[129] Previously a bank could deduct only the fair market value of the donated debt, which was significantly lower than the bank's cost basis. Under the new interpretation, the bank would be entitled to a charitable deduction equal to the fair market value of the donated debt, and the balance of its cost basis would be deductible as a business loss.[130]

Currently, the only financial institution to avail itself of this deduction is the Fleet Norstar Financial Group, which in February 1988 donated $250,000 of Costa Rican debt to that nation's central bank.[131] Many banks, however, have been unwilling to discount or sell their loans. By selling discounted loan holdings, banks would realize a loss on the loans. Realizing a loss on loans may adversely affect the bank's credit rating and increase its cost of borrowing.[132] Recognizing the full face value of the debt as a charitable deduction would be a more effective incentive, since it would not involve recognition of a loss. However, guardians of U.S. tax policy would no doubt find such an approach too extreme.[133]

B. The World Bank and Debt Exchanges

The World Bank can play a vital role in facilitating debt-for-sustainable-development swaps. Although the majority of Latin American debt is owed to commercial banks, the World Bank also holds a large amount of overall developing country debt[134] and, as an independent non-commercial institution, is in a better position to monitor policy-oriented economic activity. World Bank President Barber Conable has announced that in recognition of the Bank's influence in developing countries and its past contributions to environmental destruction he has instituted a

129. Rev. Rul. 87-124, 1987-2 C.B. 205; Dionne, *Treasury Agrees to Construe Revenue Ruling on Debt For Nature Swaps Liberally*, 39 TAX NOTES 307 (1988).

130. Dionne, *supra* note 129, at 308.

131. *Conservation Groups Help*, *supra* note 10, at 38.

132. Giaimo, *supra* note 5, at 567.

133. The Treasury's current construction of Revenue Ruling 87-124 has been criticized as "a complete reversal" of the Internal Revenue Service's traditional interpretations of the Internal Revenue Code sections dealing with losses, bad debts, and charitable contributions. Halperin, *Revenue Ruling 87-124: Treasury's Flawed Interpretation of Debt For Nature Swaps*, 43 U. MIAMI L. REV. 721, 725 (1989).

134. As of 1987, the World Bank held about 8.2 percent of developing-country debt. WORLD BANK, *supra* note 48, vol. I, at xl. That figure is likely to increase, since commercial banks have substantially decreased new lending to indebted nations in recent years. Official creditors, including the IMF and the regional development banks, held 42% of all developing country debt at the end of 1988, up from 32% at the end of 1983. *Id.* at ix, 1st Supp.

program geared towards environmental reform.[135] President Conable has since created a new, high-level Environmental Department[136] which has mandated greater consideration of the environmental impact of Bank-funded projects as well as loans for specific conservation activities such as reforestation.[137]

Conspicuously absent from the World Bank's environmental agenda is any mention of debt-for-nature or development swaps. Unlike certain commercial banks, the World Bank has never discounted any of its loans, and it is unlikely that the Bank will offer any form of debt reduction or forgiveness.[138] Recognition of a loss on loans would adversely affect the Bank's credit rating, possibly limiting the amount of funds available to it and increasing the interest rates it would need to charge on its loans.[139] Given the importance of the World Bank in international lending, debt exchanges should be viewed as a plan of last resort.[140]

---

135. Tyler, *Repaying the Green Debt*, WORLD PRESS REV., Feb. 1988, at 48.

136. *World Bank Will Change to Protect Environmental Conable Tells WRI*, 10 Int'l Env't Rep. (BNA) 207 (1987).

137. Grieves, *Poverty as Pollution*, FORBES, Nov. 14, 1988, at 205.

138. *See The Proposed General Capital Increase For The World Bank: Hearings Before the Subcomm. on International Development Institutions and Finance of the House Comm. on Banking, Finance and Urban Affairs*, 100th Cong., 2nd Sess. 1988, at 139 [hereinafter *Proposed General Capital Increase*].

The World Bank is not authorized under its charter to forgive any part of its debt holdings. ARTICLES OF AGREEMENT, *supra* note 38, at art. IV. In cases where a debtor defaults or is unable to meet its obligations due to "acute exchange stringency," the Bank may modify the terms of amortization of the loan, extend the life of the loan, or accept service payments on the loan in the debtor nation's currency for periods not to exceed three years. *Id.* at § 4(c)(i).

The World Bank often attempts to ease developing countries' debt burden by giving "structural adjustment loans" — funds aimed at promoting economic development and keeping debtors liquid. Specifically, the loans are designed to accommodate changes in the debtor nation's economic structure and are conditional upon implementing specified economic reforms. *See Proposed General Capital Increase*, *supra*, at 151-213. However, structural adjustment loans are specifically excluded from the Bank's environmental review policy. Henwood, *A Banker's World*, NATION, Oct. 30, 1989, at 481. Thus environmental concerns are not incorporated within the Bank's debt relief programs.

139. Giaimo, *supra* note 5, at 567.

The interest rates that the Bank charges on loans are calculated by a formula based on the Bank's cost of borrowing. It can only lend money for productive purposes with due regard for the prospects of repayment. ARTICLES OF AGREEMENT, *supra* note 38, at art. I; Muldoon, *supra* note 39, at 9 n.25. To the extent that a change in the Bank's credit rating raises its cost of borrowing, the rates the World Bank would have to charge on loans to developing countries would also increase. Furthermore, having to recognize loss on a loan to a given country might also affect the prospects for repayment on future loans made to that country, possibly limiting the amount the Bank could loan.

140. The World Bank is a lender of last resort. It can make loans to countries only where "the Bank is satisfied that in prevailing market conditions the borrower would be unable otherwise to obtain the loan under conditions which in the opinion of the Bank are reasonable for the borrower." ARTICLES OF AGREEMENT, *supra* note 38, at art. III, § 4(ii).

A bill introduced before Congress in 1987 would instruct the U.S. executive directors of the World Bank to encourage adoption of a pilot program of debt-for-nature swaps.[141] A similar program is advocated by the president of the African Development Bank.[142] It seems unlikely at present that either the U.S. or the World Bank will seriously consider such proposals.[143]

Current U.S. policy assumes, however, that the World Bank can assist others in effecting debt exchanges. Under a 1988 statute, the U.S. executive directors of the World Bank are instructed to propose that the Bank provide advice and assistance to institutions and nations seeking to participate in "debt-for-development swaps for human welfare and environmental conservation."[144]

A recent bill recommended for passage by the House Committee on Banking, Finance, and Urban Affairs states similar objectives with greater specificity.[145] Under the Committee's recommended version of H.R. 2494, the U.S. executive directors would encourage the World Bank to "vigorously promote" policies for the protection of the tropical rain forests, including debt-for-nature swaps.[146] The bill also reiterates requirements relating to debt-for-development swaps, listing certain examples.[147]

Limited resources and objectives of private charitable organizations and the complexities of international negotiations support arguments for coordination of debt reduction activities through an international facility such as the World Bank. Such an institution, engaging in policy-based lending for the environment, development, and debt relief, could integrate debt exchanges with each nation's overall debt relief strategies, thereby increasing their efficacy. Moreover, small-scale debt exchanges, while not overwhelmingly enticing on their own, may be considerably more attractive when offered as part of a comprehensive plan for debt relief and development.

It remains to be seen whether the World Bank can effectively coordinate debt relief programs and facilitate debt exchanges. Some critics have claimed that the Bank has been largely unable to integrate its envi-

141. H.R. 3010, 100th Cong., 1st Sess. 5 (1987) (introduced July 23, 1987), *reprinted in The Proposed General Capital Increase*, *supra* note 138, at 408.

142. *The Proposed General Capital Increase*, *supra* note 138, at 134, 348. Because most African debt is owed to governments and multilateral development banks, which do not sell their debt holdings on the secondary market, debt-for-nature swaps would require participation by the World Bank and other multilateral banks.

143. *See infra* notes 155-56 and accompanying text.

144. 22 U.S.C. § 262p-4c(b) (1988).

145. The Committee approved H.R. 2494, the International Development and Finance Act of 1989, with amendments. H.R. 2494 is intended to amend the Export-Import Bank Act of 1945. H.R. REP. No. 271, 101st Cong., 1st Sess. 21-23, *reprinted in* 1989 U.S. CODE CONG. & ADMIN. NEWS 3557, 3559-60.

146. International Development and Finance Act of 1989, 22 U.S.C. § 262p.5 (1989) (this subtitle is also known as the Tropical Forest Protection Act of 1989).

147. *Id.* at § 531.

ronmental policy into its project lending,[148] raising doubts as to whether it could also manage environmental and sustainable development programs of debt relief.[149] Optimally, the Bank would create a new department for debt relief management, whose duty it would be to coordinate debt relief plans.

C. The Proposed Debt Management Facility

A more ambitious idea is to establish a new international facility for development and debt relief management. The institution would be empowered with a mandate towards the combined goals of debt relief, economic recovery, sustainable development, and environmental protection. Congress has entertained, with some skepticism, proposals for an international debt management facility, but most such proposals have focused almost exclusively on the economic aspects of debt relief and development.

The proposed facility might take a number of forms. It could exist as an independent arm of either the World Bank or the International Monetary Fund, as a joint venture between the World Bank and the IMF, or as a completely new international institution.[150] The primary feature of the institution would be the ability to purchase discounted debt from commercial banks and to negotiate policy-oriented debt relief packages with debtor nations.[151] The facility would be directed to include debt-for-nature and debt-for-sustainable-development swaps, where practicable, in its debt relief program.

One of the major impediments to establishing an international debt management facility is the issue of funding. Participating developed

---

148. Critics claim that the World Bank's environmental department is too small to effectively evaluate environmental concerns in proposed projects, and that the Bank either fails to perceive many environmental problems or fails to address adequately those problems. *See Proposed General Capital Increase, supra* note 138, at 340-47; *NROC Seeks Reversal of Reductions in Environmental Staff Proposed by World Bank*, 11 Int'l Env't Rep. (BNA) 14 (1988); *World Bank Should Be Held Accountable For Environmental Effects, House Panel Told*, 11 Int'l Env't. Rep. (BNA) 331 (1988); Rich, *Conservation Woes at the World Bank*, NATION, Jan. 23, 1989, at 88-90; Henwood, *A Banker's World*, NATION, Oct. 30, 1989, at 481; *Foreign Operations, supra* note 2, pt. 4, at 238-69 (Treasury Report on the Progress on Implementation of Environmental Reforms in the Multilateral Development Banks).

149. Incorporating environmental concerns in debt relief should be less of a problem. The function of the Bank would be to coordinate debt relief negotiations among debtor nations and multiple creditors. Environmental review would be carried out independently by environmental groups wishing to engage in debt-for-nature or debt-for-sustainable-development swaps.

150. Each of these forms has been proposed to Congress. Several of the proposals are contained in *New Directions For Dealing With The International Debt Problem: Hearings before the Subcomm. on International Finance and Monetary Policy of the Senate Comm. on Banking, Housing and Urban Affairs*, 100th Cong., 2nd Sess. (1988) [hereinafter *New Directions*].

151. *See* J. ROBINSON, A COMPREHENSIVE AGENDA FOR LDC DEBT AND WORLD TRADE GROWTH (1988).

nations would have to provide substantial financial contributions.[152] The U.S. and other developed nations, recognizing their interests in resolving the debt crisis and promoting development and environmental protections, should pursue the development of an international debt management facility.[153]

The primary objective of the new institution would be to facilitate repayment of loans while granting debtor nations the freedom to pursue economic development. The institution would accomplish this by rescheduling debt payments and restructuring the terms of repayment. Debt-for-sustainable-development swaps are seemingly inconsistent with this goal since they essentially involve a charitable donation of debt in return for sustainable development programs, with no direct return to the institution. To the extent that the institution is charged with promoting development, however, debt-for-sustainable-development swaps would be an important component of a debt relief plan offered to a debtor nation. The economic gains realized by a debtor nation through debt-for-sustainable-development swaps[154] would potentially increase that nation's ability to repay other debt obligations held by the institution. Even if the institution were not empowered to engage in debt swaps, it could aid in their realization by including interested environmental groups in debt renegotiations with developing countries, thereby

---

152. James D. Robinson III, a leading proponent of a debt management facility, estimates that approximately $12.5 billion would be needed to fund the facility, with perhaps 10% of that amount paid up front and the rest callable if needed. He assumes that the U.S. would take a 20% share in the facility (the minimum for obtaining veto rights) and that Japan would be willing to take a larger share. *New Directions*, *supra* note 150, at 16.

At the behest of Congress, the U.S. Treasury conducted a study of the feasibility of using the IMF's gold holdings or the World Bank's liquid resources to fund an international debt management facility. The Treasury concluded that neither proposal would likely gain sufficient support from member nations of the IMF or World Bank. *Third World Debt—Reports and The Brady Plan: Hearings before the Subcomm. on International Development, Finance, Trade, and Monetary Policy of the House Comm. on Banking, Finance and Urban Affairs*, 101st Cong., 1st Sess. 94 (1988).

153. Critics of the proposed facility have raised several objections. Foremost among them is the substantial cost of funding the facility. Additionally, critics contend that the socialization of risk created by concentrating debt in one public facility runs counter to market practice. Banks would be relieved of investment risks, yet receive little incentive to extend new loans to debtor nations. WORLD BANK, *supra* note 48, vol. I, at xxxii. The U.S. Treasury has objected to the creation of a debt management facility on these and other grounds. DEBT-EQUITY SWAPS: HOW TO TAP AN EMERGING MARKET 157 (1987).

Proponents of the facility respond that the plan would not be a bank "bail-out." The banks would suffer a loss on the sale of discounted debt, thus sharing the burden of providing debt relief. Moreover, the current practice whereby multilateral development banks extend new loans to deeply indebted countries is in many respects a bailout. The MDBs provide the debtor country with funds to repay the commercial banks, and the risk of repayment is shifted to the new MDB loans. *See Foreign Operations*, *supra* note 2, pt. 5, at 87.

154. The economic benefits to the debtor nation include the cancellation of interest payments which the nation would have had to pay had the debt not been exchanged, and the revenues and savings from increased agricultural production, poverty reduction, and resource conservation.

making debt-for-sustainable-development swaps part of the overall package.

A comprehensive debt relief plan incorporating debt exchanges, debt rescheduling, and supplementary loans could substantially reduce the burden on debtor nations of repaying their debt, while promoting growth and conservation. By easing the debt burden, promoting sustainable development, and reducing the exposure of commercial institutions the program might to some extent encourage new investment in the developing nations.

D. The U.S. Role in Promoting Debt Relief and Sustainable Development

Ironically, while legislating a strong environmental and developmental mandate, the U.S. has strongly resisted increasing external environmental spending for a number of political as well as economic reasons. For example, the U.S. was the sole member at the United Nations General Assembly to reject a recent proposal by the Soviet Union for multilateral cuts in military spending in order to fund international environmental protections.[155] The U.S. has also hampered Japanese efforts to increase its funding of the World Bank for environmental programs to avoid increasing Japan's influence in the bank.[156]

While espousing a concern for the environment, the U.S. has been slow to seize upon or seriously consider creative means of protecting it. Given that the U.S. has substantially damaged its own environment and has been a significant contributor to global environmental hazards, its attempts to shape global environmental policy through rhetoric have been offensive to many nations, including Brazil.[157] The U.S. must recognize the debt it owes to the environment as well as to other nations and take charge in seeking and funding solutions. The current debt crisis may offer one means of protecting the global environment. The U.S. can contribute to these solutions through means such as the creation of an international debt relief institution, which would offer not only environmental returns, but also potential economic returns upon the eventual revitalization of the Third World.

---

155. *Poverty's Threat: Sustainable Development Offers Hope*, U.N. MONTHLY CHRON., Mar. 1988, at 37.

Similarly, the U.S. was the sole U.N. member to reject a proposed action by the General Assembly calling on industrial nations to increase funding to help resolve the debt crisis. The U.S. felt that the action "did not recognize properly the role debtor countries must play in solving the problems of their own debt." *Developing Countries Owe More Than $1,000 Billion: Solutions Must Be Urgently Sought*, U.N. MONTHLY CHRON., Mar. 1988, at 44.

156. Sancton, *Hands Across The Sea*, TIME, Jan. 2, 1989, at 63.

157. Former Brazilian President Jose Sarney stated that the United States' attempts to impose rain forest protections are "a messy interference" since the U.S. has fouled its own environment. Rowen, *supra* note 7, at H10. Additionally, Brazil's Interior Minister, João Alves, said that "[t]he big aggressors on the world environment are the industrial nations, which have given us acid rain, most of the greenhouse effect, and depletion of the ozone layer." Work & Smith, *supra* note 80, at 49.

Conclusion

Debt-for-nature and debt-for-sustainable-development swaps will solve neither the debt crisis nor the environmental crisis. They can, however, be important components of a long-term plan addressing both problems. The two swaps are complex transactions requiring accommodation of a number of interests and recognition of several factors. First, it must be recognized that the environmental crisis and the debt crisis are substantially intertwined and that mutual solutions are possible and, indeed, preferable. Furthermore, parties should realize that in terms of economic incentives and often in terms of promoting conservation, debt-for-sustainable-development swaps are preferable to pure debt-for-conservation exchanges. A combined environmental and economic accounting is a practical necessity for addressing current crises and providing for future development.

The current debt crisis offers a unique opportunity for international cooperation to protect the rain forests and foster sustainable development in Third World countries. To have a significant impact in developing countries, debt-for-nature and debt-for-development swaps must be integrated with a comprehensive debt relief program. An international institution for debt and development is needed to coordinate such programs. The U.S. should take charge in the development and funding of this institution, both as a matter of sound foreign policy and as a matter of international responsibility.

David Barrans